

We claim:

1. A method of operating on a hardcopy media with a hardcopy mechanism having a subsystem and a service station with a moveable member, comprising:  
 5       feeding the media to the hardcopy mechanism;  
       adjusting the subsystem from a first state to a second state using the moveable member; and  
       thereafter, performing an operation on said media using the subsystem.
- 10       2. A method according to claim 1 wherein:  
       feeding comprises feeding the media between a media support and a printhead; and  
       adjusting comprises adjusting a separation defined between the media support and the printhead.
- 15       3. A method according to claim 2 wherein performing comprises printing on the media when between the media support and the printhead.
4. A method according to claim 2 wherein adjusting comprises moving the  
 20       printhead with respect to the media support.
5. A method according to claim 2 further comprising:  
       supporting the printhead in a carriage supported by a guide rod; and  
       wherein the adjusting comprises rotating the carriage around the guide rod,  
 25       and securing the carriage with the printhead at a selected separation from the media support.
6. A method according to claim 5 wherein:  
       supporting comprises supporting the carriage with a guide rail; and  
 30       securing comprises securing the carriage at the guide rail to maintain the selected separation.

7. A method according to claim 6 wherein:

said first state comprises another selected separation between the printhead and the media support;

5       said second state comprises said selected separation; and

the method further comprises, following the securing step, returning the carriage from the second state to the first state.

8. A method according to claim 7 wherein:

10       the securing step comprises locking the carriage at the guide rail; and  
the returning step comprises releasing said locking of the carriage.

9. A method according to claim 8 wherein the returning further comprises allowing gravity to rotate the carriage around the guide rod until the printhead  
15       reaches said another selected separation.

10. A method according to claim 8 wherein the locking and releasing each comprise rotating a cam and moving a cam follower.

20       11. A method according to claim 8 wherein:

the locking comprises latching a lever in one position; and  
the releasing comprises unlatching the lever from said one position.

12. A method according to claim 2 further comprising:

25       supporting the printhead in a carriage supported by a guide rod; and  
wherein the adjusting comprises pushing on the carriage to rotate the carriage around the guide rod.

13. A method according to claim 12 wherein:

the service station has a moveable platform which supports said moveable member for movement; and

the pushing step comprises moving the moveable member with the platform  
5 to push on the carriage.

14. A method according to claim 13 wherein:

the service station has a platform comprising a translationally moveable  
pallet which supports said moveable member for translational movement;

10 the pushing step comprises translationally moving the moveable member  
with the pallet to push on the carriage.

15. A hardcopy mechanism, comprising:

a subsystem which operates on hardcopy media in a first state or in a second  
15 state; and

a service station having a moveable member which cooperates with said  
subsystem to change the subsystem from the first state to the second state.

16. A hardcopy mechanism according to claim 15 wherein the subsystem  
20 comprises:

a media support;

a printhead; and

a mechanism which is adjustable to change a separation defined between the  
media support and the printhead between the first state and the second state.

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17. A hardcopy mechanism according to claim 16 wherein said separation is  
changed between the first state and the second state by moving the printhead with  
respect to the media support.

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18. A hardcopy mechanism according to claim 17 further comprising:  
a guide rod;  
a carriage supported by the guide rod, with the carriage supporting the  
printhead for movement between a first position corresponding to the first state and a  
5 second position corresponding to the second state; and  
wherein the moveable member rotates the carriage around the guide rod to  
move the printhead between the first position and the second position.

19. A hardcopy mechanism according to claim 18 further comprising a  
10 securing mechanism which secures the carriage in at least one of the first and second  
positions.

20. A hardcopy mechanism according to claim 19 further comprising a guide  
rail which assists the guide rod in supporting the carriage, and wherein the securing  
15 mechanism cooperates with the guide rail.

21. A hardcopy mechanism according to claim 20 wherein the securing  
mechanism comprises:  
a backbone member having at least one cam activating feature;  
20 a cam supported by the carriage to selectively interact with said at least one  
cam activating feature to change from a first cam position corresponding to the first  
state and a second cam position corresponding to the second state; and  
a cam follower supported by the carriage to engage the cam;  
wherein in response to cam interaction with said at least one cam activating  
25 feature, the cam follower supports the carriage against the guide rail to secure the  
carriage in:  
(a) the first position when the cam is in the first cam position, and  
(b) the second position when the cam is in the second cam position.

22. A hardcopy mechanism according to claim 20 wherein the securing mechanism comprises:

a backbone member having at least one lever activating feature;

a latching device supported by the carriage, with the latching device having  
5 first and second portions;

a flexible lever supported by the carriage to hold the carriage against the guide rail in either the first position or the second position, with the lever including the first portion of a latching device; and

wherein the first and second portions of the latching device are engaged and  
10 disengaged through selective contact with said at least one lever activating feature to flex the lever to secure the carriage in:

(a) the first position when said first and second portions of the latching device are engaged, and

(b) the second position when said first and second portions of  
15 the latching device are disengaged.

23. A hardcopy mechanism according to claim 15 wherein:  
the subsystem comprises:

a media support;

20 a printhead; and

a guide rod;

a carriage supported by the guide rod, with the carriage supporting the printhead for movement between a first position corresponding to the first state and a second position corresponding to  
25 the second state; and

the service station has a moveable platform moves said moveable member into engagement with the carriage to rotate the carriage around the guide rod to move the printhead from the first position to the second position.

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24. A hardcopy mechanism according to claim 23 wherein the service station platform comprises a translationally moveable pallet which supports said moveable member push on the carriage.

5           25. A hardcopy printing mechanism for printing an image on media, comprising:

          a media handling system which delivers said media to a printzone;  
          a printhead which prints said image on said media when in the printzone;  
          a service station having a moveable member;

10           wherein the media handling system, the printhead, and said media when in the printzone, establish a spacing between said media and the printhead; and  
          an adjustment member which adjusts said spacing in response to movement of said moveable member.

15           26. A hardcopy printing mechanism according to claim 25 which prints on a first media of a first thickness and on a second media of a second thickness different from said first thickness, wherein:

          the media handling system and the printhead define a separation therebetween; and

20           the adjustment member adjusts said separation to maintain said spacing at a selected value when either the first media or the second media is in the printzone.

27. A hardcopy printing mechanism according to claim 26 further including:  
a frame having at least one cam activation member;  
a guide rod supported by the frame;  
a guide rail supported by the frame;  
5 a carriage supported for movement across the printzone by the guide rod and  
the guide rail, with the carriage being rotatable around the guide rod;  
wherein said adjustment member comprises a cam and a cam follower, with  
the cam moving in response to contact with said at least one cam activation member;  
and  
10 wherein the cam follower supports the carriage against the guide rail in at  
least two different positions in response to movement of the cam to adjust said  
separation and maintain said spacing at the selected value.

28. A hardcopy printing mechanism according to claim 26 further including:  
15 a frame having at least one latch activation member;  
a guide rod supported by the frame to define a scanning axis;  
a guide rail supported by the frame;  
a carriage supported by the guide rail and the guide rod for movement across  
the printzone along the scanning axis, with the carriage being rotatable around the  
20 guide rod;  
wherein said adjustment member comprises a flexible lever and a latching  
mechanism which holds the lever in at least two different positions in response to  
contact with said at least one latch activation member to adjust said separation and  
maintain said spacing at the selected value.

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29. A hardcopy printing mechanism according to claim 28 wherein:  
movement of the moveable member by the service station places the flexible  
lever in one of said different positions; and  
movement of the carriage along the scanning axis in conjunction with gravity  
30 placing the lever in another of said different positions.

30. A subsystem of a hardcopy mechanism having a service station with a moveable member, comprising:

an activation member which adjusts the subsystem from a first state to a second state in response to motion of the moveable member; and

5 a locking mechanism which secures the subsystem in either the first state or the second state.

31. A subsystem according to claim 30 further comprising an unlocking mechanism which unlocks the locking mechanism to transition the subsystem from  
10 the second state to the first state.

32. A subsystem according to claim 31 wherein following unlocking, gravity assists in transitioning the subsystem from the second state to the first state.

15 33. A subsystem according to claim 30 wherein said activation member comprises a media support, and a printhead carriage holding a printhead a selected separation away from the media support.

34. A subsystem according to claim 33 wherein said first state comprises the  
20 carriage holding the printhead a first selected separation away from the media support, and said second state comprises the carriage holding the printhead a second selected separation away from the media support.

35. A hardcopy mechanism, comprising:

25 a first subsystem which operates on hardcopy media in a first state or a second state; and

a service station having a moveable member which cooperates with the first subsystem to change between the first state and the second state.

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36. A method of adjusting a printhead to media spacing in a printing mechanism, comprising:

feeding media to a printzone having a media support;

supporting a printhead in the printzone, with the printhead and media support

5 defining a separation therebetween;

pivoting the printhead to adjust the printhead to media spacing in the printzone by varying said separation.

37. A method according to claim 36 wherein the pivoting comprises pushing  
10 on a carriage supporting the printhead.

38. A method according to claim 37 wherein the pushing comprises engaging a moveable member supported by a service station with the carriage.

15 39. A method according to claim 36 further comprising locking the printhead at a first separation.

40. A method according to claim 39 further comprising:

unlocking the printhead at the first separation;

20 pivoting the printhead to a second separation; and

locking the printhead at the second separation.